

## CLAIMS

1. Composite sheet material comprising a core formed from thermoplastic cellular material having a first side and a second side parallel to the first side, a first skin of continuous thermoplastic sheet material on the first side of the core and a second skin of continuous thermoplastic sheet material on the second side of the core, the composite sheet material being compressed to a thickness less than the sum of the thicknesses of the core and the skins while at a temperature higher than a temperature at which the material of the core softens.
2. The composite sheet material of claim 1, wherein the skins are secured to the core using a separate thermoplastic adhesive.
3. The composite sheet material of claim 2, wherein the fusion temperature of the thermoplastic adhesive is less than that of both the core and the skins.
4. The composite sheet material of claim 2, wherein the fusion temperatures of the core and skins are the same.
5. The composite sheet material of claim 2, wherein the core has a lower fusion temperature than that of the skins.
6. The composite sheet material of claim 1, wherein the fusion temperatures of the core and skins are the same.
7. The composite sheet material of claim 1, wherein the core has a lower fusion temperature than that of the skins.
8. Composite sheet material comprising a core formed from thermoplastic cellular material having a first side and a second side parallel to the first side, a first skin of continuous thermoplastic sheet material on the first side of the core and a second skin of continuous thermoplastic sheet material on the second side of the core, wherein the skins are attached to the core by a thermoplastic adhesive having a fusion temperature less than that of both the core and the skins.
9. The composite sheet material of claim 8, wherein the fusion temperatures of the core and skins are the same.
10. The composite sheet material of claim 8, wherein the core has a lower fusion temperature than that of the skins.

11. A method of bending the composite sheet material comprising a core formed from thermoplastic cellular material having a first side and a second side parallel to the first side, a first skin of continuous thermoplastic sheet material on the first side of the core and a second skin of continuous thermoplastic sheet material on the second side of the core, wherein the skins are attached to the core by a thermoplastic adhesive having a fusion temperature less than that of both the core and the skins, the method comprising:

heating the sheet material to a temperature above the fusion temperature of the thermoplastic adhesive,

bending the sheet material to a required shape, and

holding the sheet material in the required shape while it cools to below the fusion temperature of the thermoplastic adhesive.

12. The method of claim 11, wherein the fusion temperatures of the core and skins are the same.

13. The method of claim 11, wherein the core has a lower fusion temperature than that of the skins.

14. A method of forming composite sheet material comprising positioning a first layer of thermoplastic sheet material on a lower press platen, positioning a layer of cellular material on said first layer positioning a second layer of thermoplastic sheet material on the layer of cellular material, moving an upper press platen into engagement with the upper surface of the second layer of thermoplastic sheet material, heating the press platens to a temperature at which the cellular material softens and moving the press platens towards one another so as to cause distortion of the cellular material in contact with the first and second layers, thereby increasing the area of contact.

15. The method of claim 14, further comprising locating a first layer of thermoplastic adhesive between the first layer of thermoplastic sheet material and the layer of cellular material, locating a second layer of thermoplastic adhesive between the layer of cellular material and the second layer of thermoplastic sheet material and heating the press platens to a temperature above the fusion temperature of the adhesive.